



Attorney Docket No. 5649-1277

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Kwang-hee Lee et al.

Serial No.: 10/801,208

Group Art Unit: 2811

Filed: March 16, 2004

Confirmation No.: 2034

For: METHODS OF MANUFACTURING SEMICONDUCTOR DEVICES HAVING A RUTHENIUM LAYER USING VIA AUTOMATIC LAYER DEPOSITION AND ASSOCIATED APPARATUS AND DEVICES

June 28, 2004

Office of Patent Legal Administration
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION TO ACCORD THE PROPER FILING DATE

Sir:

As set forth in 37 CFR § 1.10(c) and MPEP § 506.02, Applicant hereby petitions to grant the proper filing date of March 16, 2004 rather than March 17, 2004 for the above-identified patent application as this was the date the application was deposited as "Express Mail" in the U.S. Postal Service. The following is enclosed as evidence of March 16, 2004 being the correct filing date for the application, which was properly filed under 37 C.F.R. § 1.10:

1. A true and accurate copy of the Cover Sheet for the Application showing the Express Mail signature and date on Page 2;
2. A true and accurate copy of the Express Mail Receipt along with a copy of the USPS-Track & Confirm from the web page (www.usps.com), showing "acceptance" or deposit date with the USPS at 5:53 p.m. on March 16, 2004; and
3. A true and accurate copy of our return post card and of the official filing receipt for this application, sent by the United States Patent and Trademark Office, showing that Applicant was given the proper filing date of March 16, 2004 on the postcard.

This petition is being filed promptly after Applicant became aware of the improperly accorded filing date. Accordingly, Applicant respectfully requests the granting of March 16, 2004 as the filing date pursuant to 37 CFR § 1.10.

In re: Kwang-Hee Lee et al.
Serial No.: 10/801,208
Filed: March 16, 2004
Page 2

On the basis that Applicant properly followed the requirements of 37 CFR § 1.10 and the USPTO failed to accord the proper filing date under MPEP § 505 and thus the need to file this petition is due to error on the part of the USPTO, it is applicant's belief that no fee is due with this petition. However, the Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

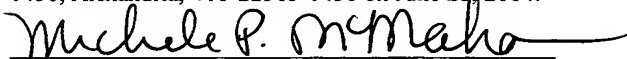


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Certificate of Mailing under 37 CFR 1.8

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Michele P. McMahan
Date of Signature: June 28, 2004

EV 381444019 US

DRA/mpm

5649-1277

March 16, 2004

Mail Stop Patent Application 03-22-22387 U.S. PTO
Commissioner for Patents 10/801208 IN

P.O. Box 1450

Alexandria, VA 22313-1450



031604

Sir: Kindly acknowledge receipt of the accompanying by placing your
receiving date stamp hereon and mailing:

Application Transmittal (in duplicate); Checks-\$1,176.00 and \$40.00; Patent
Application (14 pages, 33 claims; 4 drawing sheets); Preliminary Amendment;
Declaration; Assignment Recordation Cover Sheet and Assignment; Submittal of
Priority Document with Certified Copy of Korean App. No. 2003-19258; Information
Disclosure Statement; PTO-1449 (copies of 1 references) In re: **Kwang-hee Lee et
al.**; For: **METHODS OF MANUFACTURING SEMICONDUCTOR DEVICES
HAVING A RUTHENIUM LAYER USING VIA AUTOMATIC LAYER
DEPOSITION AND ASSOCIATED APPARATUS AND DEVICES**

Respectfully submitted,
MYERS BIGEL SIBLEY & SAJOVEC



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.: 5649-1277

DATE: March 16, 2004

**UTILITY PATENT APPLICATION TRANSMITTAL LETTER
AND FEE TRANSMITTAL FORM (37 CFR § 1.53(b))**

Mail Stop PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing under 37 CFR § 1.53(b) is:

- ☒ a patent application
☐ a Continuation ☐ a Divisional ☐ a Continuation-in-Part (CIP) Application of prior application no.: _____; filed _____, the disclosure of which is incorporated herein by reference in its entirety.
☒ and claims priority to Korean Patent Application Serial No. 10-2003-19258; filed March 27, 2003.

Inventor(s) or Application Identifier:

Kwang-hee Lee; Cha-young Yoo; Han-jin Lim; Jin-il Lee and Suk-jin Chung

Entitled: **METHODS OF MANUFACTURING SEMICONDUCTOR DEVICES HAVING A RUTHENIUM LAYER USING VIA ATOMIC LAYER DEPOSITION AND ASSOCIATED APPARATUS AND DEVICES**

Myers Bigel Sibley & Sajovec, P.A.
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Raleigh, North Carolina 27627
Telephone: (919) 854-1400
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Enclosed are:

1. ☒ Application Transmittal Letter and Fee Transmittal Form (*A duplicate is enclosed for fee processing*)
2. ☒ 14 pages of Specification (including 33 claims)
3. ☒ 4 sheet of Formal Drawings (35 USC 113)
4. ☒ Oath or Declaration
 - a. ☒ newly executed (*original or copy*)
 - b. ☐ copy from prior application (37 CFR 1.63(d) (*for continuation/divisional*) [Note Box 6 Below]
 - c. ☐ **DELETION OF INVENTOR(S)** (*Signed statement deleting inventor(s) named in the prior application*)
5. ☐ Application Data Sheet. See 37 CFR 1.76
6. ☐ Incorporation By Reference (*useable if box 4b is checked*)

The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

7. ☐ Microfiche Computer Program (*Appendix*)
8. ☒ Assignment papers (*cover sheet(s) and document(s)*)
9. ☐ Applicant claims small entity status. See 37 CFR § 1.27.
10. ☒ Information Disclosure Statement, PTO-1449, and 1 reference cited
11. ☒ Preliminary Amendment (*Please enter all claim amendments prior to calculating the filing fee.*)
12. ☐ English Translation Document
13. ☒ Certified Copy of Korean Application No. 10-2003-19258 Filed March 27, 2003
14. ☐ Sequence Listing/ Sequence Listing Diskette
 - a. ☐ computer readable copy
 - b. ☐ paper copy
 - c. ☐ statement in support
15. ☐ An Associate Power of Attorney
16. ☒ Return Receipt Postcard (MPEP 503) (*Should be specifically itemized*)
17. ☐ Other:

The fee has been calculated as shown below:

	Column 1 No. Filed	Column 2 No. Extra	Small Entity Rate Fee	Large Entity Rate Fee
BASIC FEE			\$375.00	\$ 770.00
TOTAL CLAIMS	33- 20 =	13	x 09 = \$	x 18 = \$234.00
INDEP CLAIMS	5 - 3 =	2	x 44 = \$	x 86 = \$172.00
<input type="checkbox"/> MULTIPLE Dependent Claims Presented			+ 140 = \$	+ 280 = \$
<i>If the difference in Col. 1 is less than zero, Enter "0" in Col. 2</i>			Total \$	Total \$1,176.00

- ☐ A check in the amount of \$ to cover the filing fee is enclosed.
- ☒ A check in the amount of 1,176.00 is enclosed to cover the filing fee and a check in the amount of \$40.00 to cover the Assignment Recordation fee is enclosed.
- ☐ Please charge my Deposit Account No. 50-0220 in the amount of (filing fee plus \$40.00 to cover Assignment Recordation).
- ☒ The Commissioner is hereby authorized to credit overpayments or charge the following fees associated with this communication to Deposit Account No. 50-0220:
- a. ☒ Additional filing fees under 37 CFR 1.16 for presentation of extra claims.
 - b. ☒ Additional patent application processing fees under 37 CFR 1.17.

Respectfully submitted,



D. Randal Ayers

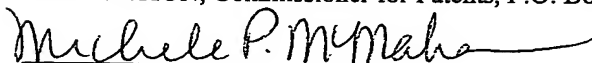
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CERTIFICATE OF EXPRESS MAILING

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Date of Deposit: March 16, 2004

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Michele P. McMahan

EV381444019US

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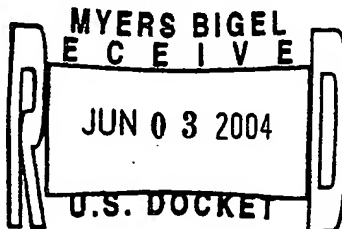


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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/801,208	03/17/2004	2811	1176	5649-1277	4	33	5

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CONFIRMATION NO. 2034

FILING RECEIPT



OC000000012831661

Date Mailed: 06/01/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Kwang-hee Lee, Seoul, KOREA, REPUBLIC OF;
 Cha-young Yoo, Gyeonggi-do, KOREA, REPUBLIC OF;
 Han-jin Lim, Seoul, KOREA, REPUBLIC OF;
 Jin-il Lee, Gyeonggi-do, KOREA, REPUBLIC OF;
 Suk-jin Chung, Gyeonggi-do, KOREA, REPUBLIC OF;

Domestic Priority data as claimed by applicant

Foreign Applications

REPUBLIC OF KOREA 10-2003-19258 03/27/2003

If Required, Foreign Filing License Granted: 05/31/2004

Projected Publication Date: 09/30/2004

Non-Publication Request: No

Early Publication Request: No

06-03-04 A09:24 IN

Title

Methods of manufacturing semiconductor devices having a ruthenium layer via atomic layer

deposition and associated apparatus and devices

Preliminary Class

257

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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